



Material Safety Data Sheet

RIM 75D Component B

MANUFACTURER

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1 - PRODUCT IDENTITY

Product Code: 1281
Product Name: Rim 75D **Component B**
Chemical Family: Polyether Polyol System
Chemical Name: Polyether Polyol System containing Aromatic Diamine

2 - Composition/Information on Ingredients - HAZARDOUS INGREDIENTS

INGREDIENT NAME/CAS #	EXPOSURE LIMITS	CONCENTRATION (%)
Diethyltoluenediamine (DETA) (Aromatic Diamine) 68479-98-1	OSHA: Not Established ACGIH: Not Established	Less than 20%

Threshold limit values have not been established for this product. GatorHyde recommends using 0.02 ppm TLV as a guideline.

3 - Hazards Identification

Emergency Overview: Warning!

Color: Yellow;

Form: Liquid;

Odor: Amine Type Odor; May cause eye, skin, and respiratory tract irritation;

Inhalation, skin absorption, or ingestion may cause methemoglobin formation resulting in a reduced ability of the blood to carry oxygen; a symptom of this may be cyanosis (purplish-blue coloring of skin, fingernails, and lips);

Harmful if inhaled or ingested;

May cause allergic skin reaction;

Harmful if absorbed through skin; May cause a temporary fogging of the eyes;

May cause frothing; Use cold water spray to cool fire-exposed containers to minimize the risk of rupture; Toxic gases/fumes are given off during burning or thermal decomposition.

POTENTIAL HEALTH EFFECTS:

ROUTE(S) OF ENTRY: Inhalation; Skin Contact; Skin Absorption.

HUMAN EFFECTS AND SYMPTOMS OF OVER-EXPOSURE:

Data has not been established for this product as a whole. The data listed is based on the hazards of the individual components. This product in addition to diethyltoluenediamine, also contains aliphatic and hindered amine components. The individual concentrations for these components are less than 1%.

ACUTE INHALATION: Due to the low vapor pressure of the major components used in this product it is unlikely that inhalation exposure will occur when handling this product under normal working conditions and at room temperature. However, during heating, spray application or processing of this product, it is possible that an exposure could occur. This product as a whole may then be expected to cause irritation of the upper respiratory tract and mucous membranes of the mouth, nose and throat. Symptoms may include coughing, headache, nausea, vomiting, and chest pain. This product contains an aromatic diamine, diethyltoluenediamine, inhalation exposure can cause methemoglobinemia with symptoms of cyanosis, a purplish-blue color of the skin, fingernails and lips.

CHRONIC INHALATION: None reported for this product. Effects are expected to be similar to those listed above for acute exposure.

ACUTE SKIN CONTACT: Upon contact, irritation and defatting of the skin are possible. The hindered amine and aliphatic amine components are considered to be fairly strong skin sensitizers and may cause an allergic skin reaction. The diethyltoluenediamine (DETA) component of this product is fat-soluble and can penetrate the skin. Based on animal tests, DETA is expected to be toxic. Skin contact and skin absorption of DETA can cause methemoglobinemia with symptoms of cyanosis, a purplish-blue color of the skin, fingernails and lips. Contact can cause irritation with redness, and severe swelling and blistering.

CHRONIC SKIN CONTACT: None reported for this product. Effects of chronic skin exposure are expected to be similar to those listed for acute skin exposure.

ACUTE EYE CONTACT: This product as a whole can cause severe irritation to the eyes. Diethyltoluenediamine (DETA) is considered severely irritating and corrosive to the eyes. In its pure form, DETA may cause burns and possible permanent eye injury or in rare extreme cases even blindness. The vapors have also been reported to cause transient fogging of the eyes as a result of corneal edema. This condition is referred to as (halo vision", "blue-gray haze" or glaucopsia. Glauropsia produces a blurring of vision against a general bluish haze and the appearance of halos around bright objects. Glauropsia is not necessarily detrimental to the eye, but it pre-disposes a person to physical accidents and reduces the ability of the affected individual to perform skilled tasks such as operating heavy equipment or driving motorized vehicles.

CHRONIC EYE CONTACT: None reported for this product. Effects are expected to be similar to those listed above for acute eye exposure.

ACUTE INGESTION: None reported for this product. However, if ingested this product is expected to cause irritation of the mouth, throat, esophagus and stomach with possible abdominal pain, vomiting and diarrhea. The diethyltoluenediamine component if ingested can cause methemoglobinemia with cyanosis, a purplish blue discoloration of the skin, fingernails and lips.

CHRONIC INGESTION: None reported for this product. However, ingestion may produce inflammatory and ulcerative effects on the oral mucous membrane.

CARCINOGENICITY: The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

MEDICAL CONDITIONS:

Aggravated by Exposure: Asthma, *Skin disorders and allergies *chronic respiratory disease, e.g., bronchitis, emphysema *eye disease.

EXPOSURE LIMITS: Not established for this product as a whole, refer to Section II for exposure limits of hazardous constituents.

4 - First Aid Measures

FIRST AID FOR EYES: Immediately flush eyes with large amounts of water for at least 15 minutes. Use fingers to insure that eyelids are separated and that the eye is being irrigated. Get medical attention immediately.

FIRST AID FOR SKIN: Remove all contaminated clothing and shoes immediately. Wash affected areas, including hair, beneath nails and other concealed areas with Polyethylene Glycol 400. Repeat washing with soap and water. If polyethylene Glycol 400 is not available, wash immediately with soap and plenty of cold water. DO NOT use hot water. Get medical attention immediately. Thoroughly clean clothing and shoes before reuse.

FIRST AID FOR INHALATION: Remove patient (s) to fresh air if breathing becomes difficult or if vapors have been inhaled. If breathing has stopped administer artificial respiration (e.g. mouth-to-mouth). In case of blue discoloration (cyanosis) of ear lobes, lips, fingernails, or in case of other symptoms (headache, dizziness) administer oxygen (to be done by qualified medical personnel only). Consult a physician immediately. DO NOT give alcohol. Avoid physical exertion. Keep patient warm and at rest.

FIRST AID FOR INGESTION: Ingestion is not likely route of exposure, but if ingested, consult a physician. Give two glasses of water for dilution. DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Should vomiting occur keep head below hip level to prevent aspiration of fluid into the lungs. Keep patient warm and at rest.

NOTE TO PHYSICIAN: Treat any ill effects symptomatically. If cyanotic (lips and fingernails turn blue) give oxygen. Treat for symptoms of methemoglobinemia. Absorption of this product into the body leads to the formation of methemoglobin that in sufficient concentrations causes cyanosis. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need be treated only by supportive measures such as bed rest and oxygen inhalation. Thorough cleansing of the entire contaminated area of the body including scalp and nails is extremely important.

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5 - Fire Fighting Measures

FLASH POINT: 342.0°F (172.2°C) Pinsky-Martens Closed Cup (ASTM D-93)

AUTO-IGNITION TEMPERATURE: Not established.

EXTINGUISHING MEDIA: Water; Carbon Dioxide; Dry Chemical; Foam:

SPECIAL FIRE FIGHTING PROCEDURES: Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Material supports combustion. During a fire, irritating and toxic gases such as carbon monoxide may be generated by thermal decomposition or combustion. DO NOT spray fire directly. A solid stream of water directed into the hot burning liquid could cause frothing.

6 - Accidental Release Measures

SPILL OR LEAK PROCEDURES: Remove all sources of flames, heating elements, gas engines, etc. Emergency clean-up personnel should wear self-contained breathing apparatus and protective clothing. If material is released or spilled, dam up to prevent spreading and contamination of surface waters, ground waters and drinking supplies. Notify local health authorities and other appropriate agencies if such contamination should occur. Spilled material should be contained and pumped into steel containers for recovery or disposal. Vermiculite absorbent should be spread over the spill area to absorb as much of the remaining product as possible. Scoop up solid absorbent for waste disposal. The spill area should then be washed down with soap and water to dilute and remove remaining traces of material. Ventilate area to remove the remaining vapors.

7 - Handling and Storage

STORAGE TEMPERATURE (MIN/MAX): Ambient

SHELF LIFE: 6 months

SPECIAL SENSITIVITY: Material is hygroscopic and may absorb small amounts of atmospheric moisture.

HANDLING/STORAGE PRECAUTIONS: Container should be tightly closed to prevent contamination with foreign materials and moisture. Avoid skin and eye contact. Avoid breathing vapors if generated. If contamination with isocyanates is suspected, do not reseal containers. Employee education and training in safe handling of this product are required under the OSHA Hazard Communication Standard.

8 - Personal Protection

EYE PROTECTION REQUIREMENTS: Chemical safety goggles should be worn. Plastic face shields should be worn in addition to safety goggles for complete face protection. Contact lenses should not be worn by persons who work with this product.

SKIN PROTECTION REQUIREMENTS: Permeation resistant gloves recommended. Barrier creams can be used, but their use should be kept to a minimum.

VENTILATION REQUIREMENTS: Local exhaust ventilation is mandatory when working with this product.

RESPIRATOR REQUIREMENTS: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupations Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA). Air purifying respirator equipped with full-face organic vapor cartridge if vapors are detected, or are irritating. In areas of high concentrations, fresh air-line respirators or self-contained breathing apparatus should be used.

ADDITIONAL PROTECTIVE MEASURES: Safety showers and eyewash stations should be easily accessible to the work area.

9 - Physical and Chemical Properties

PHYSICAL FORM	Liquid
COLOR	Yellow
ODOR	Amine type odor
ODOR THRESHOLD	Not established
pH	Approximately 10
BOILING POINT	Not established
MELTING/FREEZING POINT	Not established
SOLUBILITY IN WATER	Partially soluble
SPECIFIC GRAVITY	1.0279 @ 77°F (25°C)
BULK DENSITY	8.58 lbs/gal
VAPOR PRESSURE	Not established
VAPOR DENSITY	Not established
VOC BY WEIGHT	Approximately 22% - Calculated data

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10 - Stability and Reactivity

STABILITY	This is a stable material
HAZARDOUS POLYMERIZATION	Will not occur.
INCOMPATIBILITIES	Oxidizing materials, halogens, isocyanates, and acids.
INSTABILITY CONDITIONS	Avoid high temperatures, sparks and flame.
DECOMPOSITION TEMPERATURE	Not established.
DECOMPOSITION PRODUCTS	By fire - CO, CO ₂ , oxides of nitrogen, amines, and other aliphatic fragments which have not been determined.

11 - Toxicological Information

No toxicity data has been established for this product as a whole. The data listed is for individual components.

TOXICITY DATA FOR: Diethyltoluenediamine (DETA)

ACUTE TOXICITY

Oral LD50	472 mg/kg (Female Rats); 542 mg/kg (Male Rats)
Dermal LD50	Greater than 700 mg/kg (Rabbits)
Inhalation LC50	Exposure of rats to aerosols for 1 hour at 2.45 mg/L did not produce mortality.

Eye Effects: Moderate to severe irritation to rabbit eyes.

Skin Effects: Slightly irritating to rabbits. Skin sensitization tests in guinea pigs were negative.

Sub Chronic Toxicity: A sub chronic 21-day dermal toxicity study on diethyltoluenediamine (DETA) was conducted with rabbits. Repeated dermal applications of this compound at 1, 10, and 100 mg/kg for three weeks (five days/week) resulted in mild to moderate local irritation at the 10 and 100 mg/kg doses. No significant local effects were observed at the 1 mg/kg dose. There were no significant systemic effects observed at any of the dose levels of DETA.

Carcinogenicity: Preliminary information from a recent study in which diethyltoluenediamine was administered in the diet of rats for two years suggests an increased incidence of tumors in the liver and thyroid of male rats, and in the liver and possibly in the mammary glands of female rats.

Other Toxicity Data: Diethyltoluenediamine (DETA) has been evaluated for mutagenic activity in a number of "in vitro" assays both in the absence of or in presence of liver microsomal enzyme preparations. In non-activated as well as activated *Salmonella typhimurium*, *Saccharomyces cerevisiae* D4, *E. coli*, DNA Repair Test and Mammalian Cell Transformation Assay systems this dilutions, DETA did produce a significant response when tested in the Mammalian Cell Point Mutation Assay without metabolic activation. However, when DETA was assayed in this system in the presence of a liver microsomal preparation, no indication of a mutagenic response was seen. DETA has been examined for possible mutagenic activity in several "in vitro" assays in rodents. No statistically significant dose response was seen to DETA in the Dominant Lethal Test or in the Micronucleus Test. No suspect clastogenic activity was seen in response to DETA in a Cytogenetic Assay. Therefore, DETA does not appear to be genetically active.

12 - Ecological Information No ecological information available.

13 - Disposal Considerations

WASTE DISPOSAL METHOD: Waste must be disposed of in compliance with federal, state, and local environmental control regulations. If incinerated, toxic and corrosive combustion gases must be properly handled.

EMPTY CONTAINER PRECAUTIONS: Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

14 - Transportation Information

TECHNICAL SHIPPING NAME	Polyether Polyol System containing Aromatic Diamine	
FREIGHT CLASS BULK	Polypropylene Glycol	
FREIGHT CLASS PACKAGE	Polypropylene Glycol	
PRODUCT LABEL	Product Label Established	

DOT (Domestic Surface):	HAZARD CLASS OR DIVISION	Non-regulated
IMO / IMDG code (Ocean):	HAZARD CLASS DIVISION NUMBER	Non-Regulated
ICAO / IATA (Air):	HAZARD CLASS DIVISION NUMBER	Non-Regulated
HARMONIZED SYSTEM TARRIFF#:	HS# 3907.20.0000	

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15 - Regulatory Information

OSHA STATUS: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS: On TSCA Inventory

CERCLA REPORTABLE QUANTITY: None reported.

SARA TITLE III:

SECTION 302: EXTREMELY HAZARDOUS SUBSTANCES: None

SECTION 311/312: HAZARD CATEGORIES: Immediate Health Hazard; Delayed Health Hazard

SECTION 313: TOXIC CHEMICALS: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20.24)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>COMPONENT NAME/CAS NUMBER</u>	<u>CONCENTRATION</u>	<u>STATE CODE</u>
Polyether Polyol 9082-00-2 (Total concentration)	Less than 80%	PA3, NJ4
Polyether Polyol 9003-11-6 (Total concentration)	Less than 80%	PA3, NJ4
Diethyltoluenediamine (DETA) 68479-98-1 (Aromatic Diamine)	Less than 20%	PA3, NJ4

NJ4 = New Jersey Other—included in 5 predominant ingredients > 1%

PA3 = Pennsylvania Non-hazardous present at 3% or greater.

CALIFORNIA PROPOSITION 65

To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects.

MASSACHUSETTS SUBSTANCE LIST (MSL)

Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products. To the best of our knowledge, this product contains no substances at a level which could require reporting under the statute.

16 - Other Information

HMIS RATINGS:

Health	Flammability	Reactivity		
2	1	0		
0 = Minimal	1 = slight	2 = Moderate	3 = Serious	4 = Severe

GatorHyde's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS ratings are provided by GatorHyde as a customer service.

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